10/501392 Rec'd PCT/PTO 15 JUL 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date 24 July 2003 (24.07.2003)

PCT

(10) International Publication Number WO 03/061115 A1

(51) International Patent Classification7: H03F 1/02, 3/24

(21) International Application Number: PCT/SE02/02320

(22) International Filing Date:

13 December 2002 (13.12.2002)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0200127-9 0202120-2 16 January 2002 (16.01.2002) SE 3 July 2002 (03.07.2002) SE

(71) Applicant (for all designated States except US): TELE-FONAKTIEBOLAGET LM ERICSSON [SE/SE]; S-126 25 Stockholm (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): HELLBERG, Richard [SE/SE]; Forellvägen 14 3tr, S-141 47 Huddinge (SE)

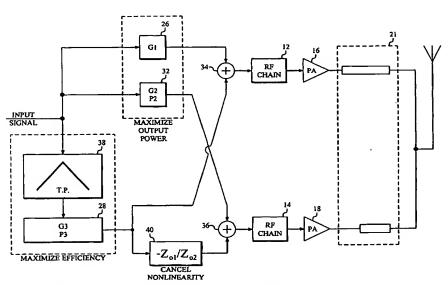
- (74) Agents: HEDBERG, Ake et al.; Aros Patnet AB, P.O. Box 1544, S-751 45 Uppsala (SE).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: COMPOSITE POWER AMPLIFIER



(57) Abstract: A composite power amplifier includes a first and a second power amplifier (16, 18) connected to an input signal over an input network and to a load over an output network (21). The output network includes phase shifting elements for generating different phase shifts from each power amplifier output to the common load. The input network includes means for driving both power amplifiers to produce (1) first output current components having an amplitude that increases linearly with increasing output signal amplitude below a transition point (T.P) and decreases motonically with increasing output signal amplitude above said point, and (2) second output current components having an amplitude that increases linearly with increasing output signal amplitude both below and above the transition point.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.